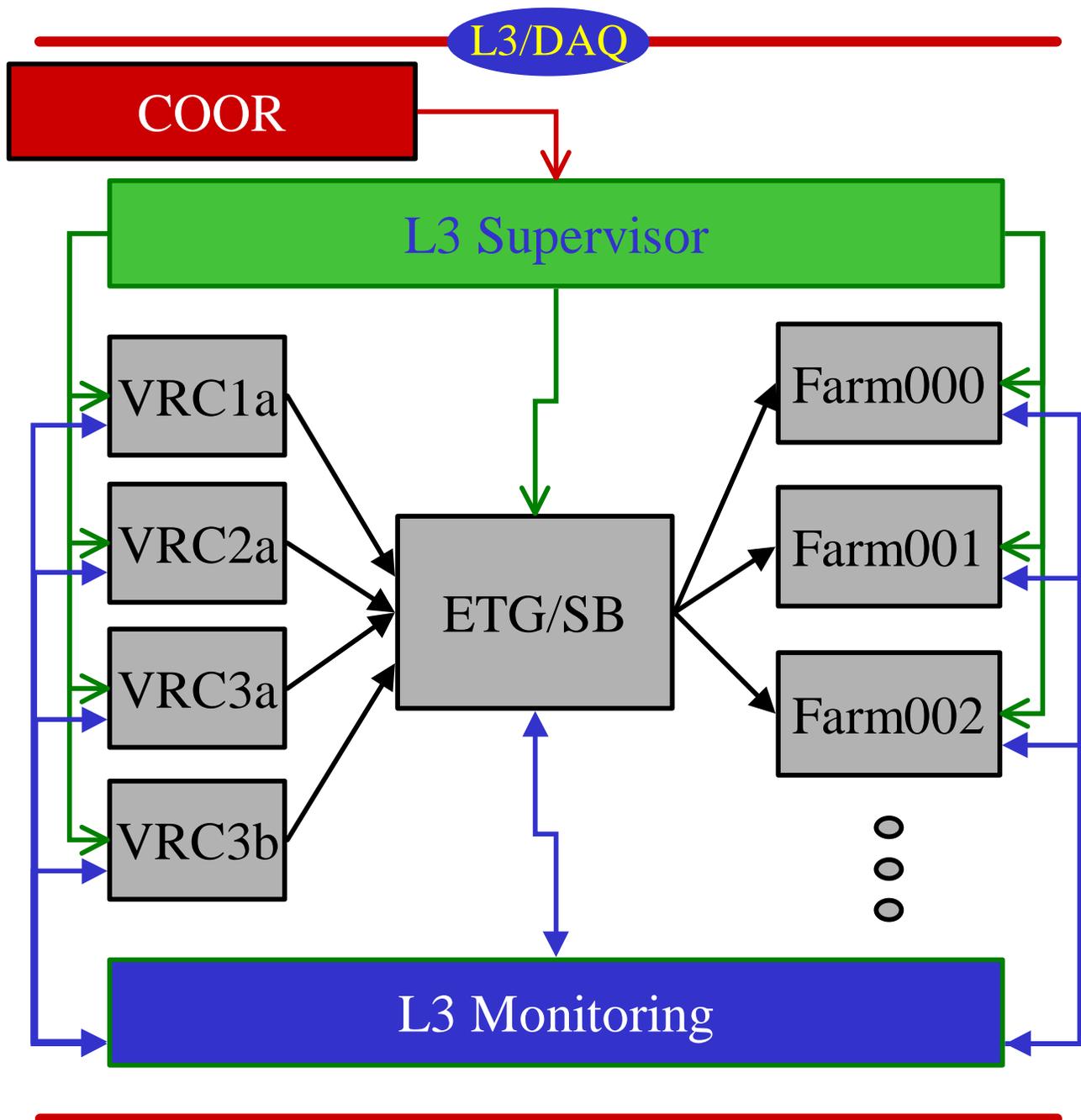


The Current L3/DAQ



Control and Monitoring of L3/DAQ

L3/DAQ

- **Supervisor**
 - **Configures VRCs, ETG/SB, Nodes**
 - Routing
 - L3 Trigger Programming
- **AutoStart**
 - **Starts and stops VRC, ETG/SB, Node executables**
 - Also does version control
 - **Displays logfiles**
 - **Simple WWW interface**
- **Monitoring**
 - **Concise WWW displays of L3/DAQ status**
 - ETG/SB mainly
 - Suggestions always welcome
- <http://d0l3super.fnal.gov/shifter>

What Happens in the L3/DAQ When...

L3/DAQ

- You click “Start Run” in the Taker
 - COOR tells Super which crates, farm nodes and triggers to include in the run.
 - Super stops any triggers running
 - Super configures the ETG/SB routing, and sends trigger programming to Nodes
 - Super tells the VRCs to start sending data and tells the ETG to start triggers

What to do when...

L3/DAQ

- Data doesn't flow
- Super complains in Taker
 - **Bad XML for trigger?**
 - **L3/DAQ machine down/slow?**
 - **Check AutoStart...all log files available?**
 - No logfile available for a machine indicates the needed process isn't running
 - **If L3/DAQ machine down...stop all runs, reset L3/DAQ via AutoStart**

What to do when...

L3/DAQ

- **Run starts, no events in Taker**
 - **Are triggers firing?**
 - **See DAQMon/TrigMon or ETG/SB Monitoring (total trigger count is shown)**
 - **Is there a busy? Where is it coming from?**
 - **Crates providing data?**
 - **Is the VRC up?**
 - **VRC logfile prints out a line for every crate when it provides data...check logfile**
 - If crate not working, contact detector expert for that crate
 - If VRC is down or misbehaving, reset L3/DAQ
 - **If the VRCs are getting data, check the ETG/SB**

What to do when...

L3/DAQ

- Run starts, no events in Taker (cont.)
 - **ETG/SB up and receiving data?**
 - **Check ETG/SB logfile or monitoring**
 - Logfile prints out “incomplete event” and missing crate ID(s) when missing crate(s) for an event
 - Monitoring page shows which crates have gone missing, and how many times, as well as totals and current routing information
 - **If VRCs are getting data from crates, ETG/SB almost always gets data.**
 - A single crate missing is usually the problem...contact detector expert.
 - **If ETG/SB is not complaining, check the farm nodes**

What to do when...

L3/DAQ

- **Farm Nodes**
 - **Is the FarmNode up?**
 - **AutoStart**
 - **Check logfile**
 - **Most complaints in the logfile come from the L3 trigger code (the Filter) that runs in ScriptRunner.**
 - **It may be that bad trigger programming got down to the node. Jon Hays is the Filter expert and can diagnose this easily.**
 - **If the node has crashed...reset L3/DAQ. If it continues to crash, it's probably bad trigger programming.**